



THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

Japanese American Design Experience (JADE)

ENGR 5797.26

Credit Hours:

3.00

Course Levels:

Undergraduate (1000-5000 level)

Graduate

Course Components:

Lecture

Course Description:

In fields like automobiles, high-speed rail, semiconductors, gaming consoles, and optical/precision equipment, Japan is famous for its technological advancements and engineering marvels. This new course will focus on exploring design, engineering and sustainability in a Japanese cultural context. The class will focus on how education and culture influences design choices and technology in STEM.

Prerequisites and Co-requisites:

none

Course Goals / Objectives:

- 1. Gain a strong appreciation for the historical, cultural, political and socio-economic conditions in the context of a nonwestern culture by researching Japanese design and engineering projects.
- 2. Develop Global sensitivity about design practices and problem solving techniques.
- 3. Develop skills and values that support intercultural teamwork.
- 4. Develop good written and oral communication skills.
- 1. Engage in critical and logical thinking about design and engineering projects.
- 2. Engage in an advanced, in-depth, scholarly exploration of a course topic.
- 3. Identify, describe, synthesize and discuss approaches or experiences as they apply to a design or engineering projects in Japan.
- 4. Building on their intercultural experience, demonstrate a developing sense of self as a learner through reflection, self-assessment, and creative work, to respond to new contexts.
- 5. Describe, analyze, and critique the roles and impacts of human activity and technology on a different human society or natural environment, in the past, present, and future.

Course Topics:

- Historical, cultural, political, socio-economic conditions in the context of a nonwestern culture in relation to STEM design
 - Global Sensitivity, intercultural teamwork skills, creative problem solving
 - Improve written and oral communication skills
 - Critical thinking, scholarly exploration, analysis of STEM design in Japan
 - Travel logistics, planning, preparation
 - Describe, analyze, critique the roles and impacts of human activity and technology on a different human society or natural environment, in the past, present, and future
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Designation:

Elective